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#18

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/251,638B

DATE: 11/13/2002 TIME: 13:49:23

Input Set : A:\EP.txt

Output Set: N:\CRF4\11132002\I251638B.raw

```
3 <110> APPLICANT: DANIELL, HENRY
 5 <120> TITLE OF INVENTION: GENETIC ENGINEERING OF COTTON TO INCREASE FIBER
        STRENGTH, WATER ABSORPTION AND DYE BINDING
 8 <130> FILE REFERENCE: 1483-R-00
10 <140> CURRENT APPLICATION NUMBER: 09/251,638B
11 <141> CURRENT FILING DATE: 1999-02-17
13 <150> PRIOR APPLICATION NUMBER: 60/074,997
14 <151> PRIOR FILING DATE: 1998-02-17
16 <160> NUMBER OF SEQ ID NOS: 5
                                                          ENTERED
18 <170> SOFTWARE: PatentIn Ver. 2.1
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 5
22 <212> TYPE: PRT
23 <213> ORGANISM: Artificial Sequence
25 <220> FEATURE:
26 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
        peptide
29. <400> SEQUENCE: 1
30 Val Pro Gly Val Gly
34 <210> SEO ID NO: 2
35 <211> LENGTH: 5
36 <212> TYPE: PRT
37 <213> ORGANISM: Artificial Sequence
39 <220> FEATURE:
40 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
41
        peptide
43 <400> SEQUENCE: 2
44 Gly Val Gly Val Pro
48 <210> SEQ ID NO: 3
49 <211> LENGTH: 605
50 <212> TYPE: PRT
51 <213> ORGANISM: Artificial Sequence
53 <220> FEATURE:
54 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
        peptide
57 <400> SEQUENCE: 3
58 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
                                        10
61 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
```

64 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly

Input Set : A:\EP.txt

65			35					40					45			
	Val	Pro		Val	Gly	Val	Pro		Val	Gly	Val	Pro		Val	Gly	Val
68		50	-		-		55	-		•		60	-		-	
70	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro
71	65					70					75					80
	Gly	Val	Gly	Val		Gly	Val	Gly	Val		Gly	Val	Gly	Val		Gly
74	17 - 1	C1	**- 3	D	85	** - 7	01	TT _]	D	90	** - 1	G1	T7 - 3	Б	95	17 - 3
77	Val	стА	vaı	100	GTÀ	vaı	СТУ	vaı	105	GIÀ	vaı	GTÀ	vaı	110	СТА	vaı
	Gly	Val	Pro		Val	Glv	Val	Pro		Val	Glv	Val	Pro		Val	Glv
80	O ± y	vul	115	Or y	· u _	O L y	· u _	120	O ± y	V () 1	O± y	• • •	125	O _L y	· u i	Ory
	Val	Pro		Val	Gly	Val	Pro		Val	Gly	Val	Pro	Gly	Val	Gly	Val
83		130	-		-		135	_		-		140	-		•	
85	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro
	145					150					155					160
	Gly	Val	Gly			Gly	Val	Gly	Val		Gly	Val	Gly	Val		Gly
89					165					170				_	175	
	Val	Gly	Val		Gly	Val	Gly	Val		Gly	Val	GLy	Val		Gly	Val
92	C1	177	Dwo	180	u-1	C1	17.7	Dwo	185	171	C1	17.7	Dwo	190	W-1	C1
95	Gly	vai	195	сту	vaı	сту	vaı	200	СТУ	vaı	СТУ	vaı	205	сту	var	СТУ
	Val	Pro		Val	Glv	Val	Pro		Val	Glv	Val	Pro		Val	Glv	Val
98	VUI	210	ОТУ	• • • •	OLY		215	O L y	VUI	O± y	V CL L	220	O _T y	VUL	Ory	Var
) Pro		, Val	Gly	Val			, Val	Gly	Val	Pro		, Val	Gly	Val	Pro
	1 - 225			-		230	_		-		235	_		-		240
103	3 Gly	Val	. Gly	v Val	Pro	Gly	Val	. Gly	v Val	Pro	Gly	Val	Gly	v Val	Pro	Gly
104					245					250					255	
		Gly	/ Val		_	Val	Gly	v Val		_	Val	Gly	v Val		_	v Val
10			-	260		63	•• •	-	265		0 1	1	_	270		63
109	_	val	275	_	vaı	GIY	vaı	. Pro	_	vaı	GTA	vai	285	_	vaı	Gly
		Pro		•	G1 v	Val	Dro			Glv	Val	Dro			Gla	v Val
113		290	_	vai	GIY	Val	295	-	val	ОТУ	Val	300	-	Val	Ory	vai
				Gly	Val	Pro			Gly	Val	Pro			Gly	Val	Pro
	305	_		_		310			-		315	_		_		320
118	3 Gly	Val	. Gly	' Val	Pro	Gly	Val	Gly	v Val	Pro	Gly	Val	Gly	/ Val	Pro	Gly
119					325					330					335	
		Gly	v Val		_	Val	Gly	' Val		_	Val	Gly	' Val		-	v Val
122			_	340				_	345				_	350		
		Val			Val	Gly	Val			Val	Gly	Val			Val	Gly
125		Dwa	355		C1	17.7	Dwa	360		C1	17.01	Dwo	365		C1.	. 77
128		370	_	vaı	етй	vaı	375		val	СТА	vaı	380	-	vaı	СТУ	' Val
				Glv	Val	Pro			Glu	Val	Pro			Glv	. Val	Pro
	385		v a L	. .	* 61 1	390	_	٠u1	. Оту	* 44	395	_	• 44	. Сту	• 0.1	400
			Glv	Val	Pro			Glv	Val	Pro			Glv	, Val	Pro	Gly
134	_				405	_				410	_				415	_
136	5 Val	Gly	, Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val	Gly	Val	Pro	Gly	Val
137	7	_		420					425					430		

Input Set : A:\EP.txt

```
139 Gly Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly
           435
                              440
142 Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly Val
                          455
145 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Pro
148 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
                   485
                                      490
151 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
                                  505
154 Gly Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly
          515
                               520
157 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
    530
                          535
160 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
                      550
                                          555
163 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
                                      570
                   565
166 Val Gly Val Pro Gly Val Gly Val Gly Val Pro Gly Val
               580
                                  585
169 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
           595
                               600
170
173 <210> SEQ ID NO: 4
174 <211> LENGTH: 100
175 <212> TYPE: PRT
176 <213> ORGANISM: Artificial Sequence
178 <220> FEATURE:
179 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
         peptide
182 <400> SEQUENCE: 4
183 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
186 Val Gly Val Pro Gly Val Gly Val Gly Val Pro Gly Val
                20
189 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
192 Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly Val
                           55
195 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Pro
198 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
199
                                       90
201 Val Gly Val Pro
202
               100
206 <210> SEQ ID NO: 5
207 <211> LENGTH: 605
208 <212> TYPE: PRT
209 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
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Input Set : A:\EP.txt

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212 <221> NAME/KEY: repeat unit
213 <222> LOCATION: 1..605
214 <223> OTHER INFORMATION: Repeats at least once
216 <220> FEATURE:
217 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
218
         peptide
220 <400> SEQUENCE: 5
221 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
224 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
               20
                                    25
227 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
230 Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly Val
                           55
233 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
                       70
236 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
239 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
242 Gly Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly
                              120
243 115
245 Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly Val
                          135
248 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
249 145
                      150
                                           155
251 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
                  165
                                      170
254 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
              180
                                  185
257 Gly Val Pro Gly Val Gly Val Pro Gly Val Pro Gly Val Gly
                              200
260 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
                           215
263 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
                       230
                                           235
266 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
                   245
                                      250
269 Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val
                                   265
              260
272 Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly
                               280
           275
275 Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val
                           295
278 Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro
                                          315
281 Gly Val Gly Val Pro Gly Val Gly Val Pro Gly Val Gly Val Pro Gly
282
                   325
                                       330
```

Input Set : A:\EP.txt

284 285	Val	Gly	Val	Pro 340	Gly	Val	Gly	Val	Pro 345	Gly	Val	Gly	Val	Pro 350	Gly	Val
287 288	Gly	Val	Pro 355	Gly	Val	Gly	Val	Pro 360	Gly	Val	Gly	Val	Pro 365	Gly	Val	Gly
290 291	Val	Pro 370	Gly	Val	Gly	Val	Pro 375	Gly	Val	Gly	Val	Pro 380	Gly	Val	Gly	Val
	Pro 385	Gly	Val	Gly	Val	Pro 390	Gly	Val	Gly	Val	Pro 395	Gly	Val	Gly	Val	Pro 400
296 297	Gly	Val	Gly	Val	Pro 405	Gly	Val	Gly	Val	Pro 410	Gly	Val	Gly	Val	Pro 415	Gly
299 300	Val	Gly	Val	Pro 420	Gly	Val	Gly	Val	Pro 425	Gly	Val	Gly	Val	Pro 430	Gly	Val
302 303	Gly	Val	Pro 435	Gly	Val	Gly	Val	Pro 440	Gly	Val	Gly	Val	Pro 445	Gly	Val	Gly
305 306	Val	Pro 450	Gly	Val	Gly	Val	Pro 455	Gly	Val	Gly	Val	Pro 460	Gly	Val	Gly	Val
	Pro 465	Gly	Val	Gly	Val	Pro 470	Gly	Val	Gly	Val	Pro 475	Gly	Val	Gly	Val	Pro 480
311 312	Gly	Val	Gly	Val	Pro 485	Gly	Val	Gly	Val	Pro 490	Gly	Val	Gly	Val	Pro 495	Gly
314 315	Val	Gly	Val	Pro 500	Gly	Val	Gly	Val	Pro 505	Gly	Val	Gly	Val	Pro 510	Gly	Val
317 318	Gly	Val	Pro 515	Gly	Val	Gly	Val	Pro 520	Gly	Val	Gly	Val	Pro 525	Gly	Val	Gly
321		530	_		_		535	_		_		540	_	Val	_	
323 324		Gly	Val	Gly	Val	Pro 550	Gly	Val	Gly	Val	Pro 555	Gly	Val	Gly	Val	Pro 560
326 327	Gly	Val	Gly	Val	Pro 565	Gly	Val	Gly	Val	Pro 570	Gly	Val	Gly	Val	Pro 575	Gly
330		_		580			_		585	_		_		Pro 590	Gly	Val
332 333	Gly	Val	Pro 595	Gly	Val	Gly	Val	Pro 600	Gly	Val	Gly	Val	Pro 605			

VERIFICATION SUMMARY

DATE: 11/13/2002

PATENT APPLICATION: US/09/251,638B

TIME: 13:49:24

Input Set : A:\EP.txt